State of Iowa - Return on Investment Program / IT Project Evaluation

SECTION 1: PROPOSAL

Tracking Number (For Project Office Use)

Project Name: _W&M Slide in Units_ Date: 9/27/00_

Agency Point of Contact for Project: Darryl Brown, IDALS Wgts. & Meas. Bureau Chief

Agency Point of Contact Phone Number / E-mail: 281-5717 darryl.brown@idals.state.ia.us

Executive Sponsor (Agency Director or Designee) Signature: Secretary Patty Judge_____

Is this project necessary for compliance with a Federal standard, initiative, or statute? (If "Yes," cite specific requirement, attach copy of requirement, and explain in Proposal Summary)	❑ Yes	X No
Is this project required by State statute? (If "Yes," explain in Proposal Summary)	X Yes	❑ No
Does this project meet a health, safety or security requirement? (If "Yes," explain in Proposal Summary)	X Yes	❑ No
Is this project necessary for compliance with an enterprise technology standard? (If "Yes," explain in Proposal Summary)	❑ Yes	X No
Does this project contribute to meeting a strategic goal of government? (If "Yes," explain in Proposal Summary)	X Yes	❑ No
Is this a "research and development" project? (If "Yes," explain in Proposal Summary)	❑ Yes	X No

PROPOSAL SUMMARY:

In written detail, explain why the project is being undertaken and the results that are expected. This includes, but is not limited to, the following:

1. A pre-project (before implementation) and a post-project (after implementation) description of the system or process that will be impacted.

   Pre-Project:

   Each inspector must block of the drive lane of the station to prevent the public from interfering with the inspection. The inspector fills a five gallon test measurer for testing from a nozzle on the first pump inspected. He then bends over to read the amount that has been delivered into the test measurer. Once testing is finished he carries or carts the full test measurer to the storage area where he has to filter and pour the gasoline back into the storage tank. Many storage tanks are above ground so the inspector may have to lift each test measurer over his head to pour the gasoline back in the storage tank. Each test measurer full of gasoline weighs more than 40 pounds. This process is repeated once for every individual fuel pump in the station. Quite often the storage area will be as far as three hundred feet from the fuel pumps.
   Post-Project:

The slide-in units will be mounted on each vehicle. The inspector will drive to each pump and fill the unit with five gallons of gasoline for testing. The gasoline will flow through the test measurer and the inspector will read the results. The results will be at eye level for easier readability and there will not be any hand held test measurers to carry. Because each slide-in unit has storage capability onboard the inspector may run more advanced tests when he deems necessary. The pumps will be blocked off using the test vehicle thereby providing better protection for the inspector and the public. The test vehicle will not have to be moved until all tests are completed. The test vehicle can perform tests on twenty- four individual pumps before being driven to the storage area and pumping the gasoline back into the storage tank.

2. A summary of the extent to which the project provides tangible and intangible benefits to either Iowa citizens or to State government. Included would be such items as qualifying for additional matching funds, improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, complying with enterprise technology standards, meeting a strategic goal, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, complying with federal or state laws, etc.

   The inspection process, by its very nature, requires the inspector to remove devices from service while they are being tested, thereby preventing use by customers. These slide-in testing units will improve customer service, both those owning the devices as well as customers purchasing gas, by reducing by as much as 50%, the time inspectors will be on the station drive.

   The investment in these units will generate savings to the department, realized by a greater number of inspections, the ability to investigate complaints, and fewer claims for workers compensation injuries.

   Aside from the safety issues and time savings, the slide-in units will allow testing of peripheral equipment necessary to the operation of gas stations, truck stops and convenience stores. Currently Weights & Measures are able to only complete device testing which involves the accuracy of the meter. In addition to accuracy verification, Weights & Measures will be able to help assure compliance with other areas of motor fuel quality such as a.) verifying that the calculations on credit card transactions agree with the price per gallon, total gallons and total price posted at and calculated at the pump; b.) verifying fuel delivery invoices to check for various octane oxygenate enhancers from the fuel terminals.

3. A summary that identifies the project stakeholders and how they are impacted by the project.

   As cited above, the inspection process, requires the inspector to remove devices from service while they are being tested, thereby preventing use by customers. These slide-in testing units will improve customer service, both those owning the devices as well as customers purchasing gas, by reducing by as much as 50%, the time inspectors will be on the station drive. In addition, by verifying the unit price calculations, purchasers of vehicle fuel are assured accuracy in the amounts they are charged and overcharges could amount to nearly $420,000.

SECTION 2: PROJECT PLAN

Individual project plans will vary depending upon the size and complexity of the project. A project plan includes the following information:

1. Agency Information

Project Executive Sponsor Responsibilities: Identify, in Section I, the executive who is the sponsor of the project. The sponsor must have the authority to ensure that adequate resources are available for the entire project, that there is commitment and support for the project, and that the organization will achieve successful project implementation.

Testing of retail motor fuel dispensers (gas pumps) annually is a Code mandate. The executive sponsor, Secretary Patty Judge is committed to the Department meeting Code mandates. She is also committed to using the IT Resources allocated for this project for the purchase of the slide-in units and assuring their full implementation during SFY02.

Organization Skills: Identify the skills that are necessary for successful project implementation. Identify which of these skills are available within the agency and the source(s) and acquisition plan for the skills that are lacking.

The organization's staff has sufficient knowledge and skills to satisfy any acquisition, installation, training or implementation requirements that will be needed.

2. Project Information

Mission, Goals, Objectives: The project plan should clearly demonstrate that the project has developed from an idea to a detailed plan of action. The project plan must link the project to an agency's mission, goals, and objectives and define project objectives and how they will be reached. The project plan should include the following:

A. **Expectations**: A description of the purpose or reason that the effort is being undertaken and the results that are anticipated.

The slide-in units are intended to reduce or eliminate inspection staff injuries, which are related to the manual lifting, carrying and dumping of the 5-gallon test measures when returning product to storage. A station with 24 meters will require at least 48 trips to storage manually. The test units will allow a station with 24 meters to be inspected and tested in approximately one third of the time and would only require two trips to storage due to the large storage capacity of the slide-in units and requires no manual handling of the test measures.

B. **Measures**: A description of the set of beliefs, tradeoffs and philosophies that govern the results of the project and their attainment. How is the project to be judged or valued? What criteria will be used to determine if the project is successful? What happens if the project fails?

The project will be successful if a.) inspection staff injuries are reduced and/or eliminated, b.) Code mandate of annual testing is met and c.) verification of credit card transaction calculations and fuel delivery invoices occur regularly.

C. **Environment:** Who will provide input (e.g., businesses, other agencies, citizens) into the development of the solution? Are others creating similar or related projects? Are there cooperation opportunities?

Other states' Weights & Measures programs have successfully implemented the slide-in units. Those states have already assisted Iowa's program with initial program research as well as technical expertise and will continue to through implementation.

D. **Project Management and Risk Mitigation**: A description of how you plan to manage the project budget, project scope, vendors, contracts and business process change (if applicable). Describe how you plan to mitigate project risk.

The two slide-in units will be purchased at one time directly from the manufacturer. The manufacturer is prepared to make prompt delivery upon receipt of our order. In addition, the slide-in units require full size pickups. Those vehicle specifications have been communicated to General Services, Vehicle Dispatch and they are ready to equip the program with the necessary vehicles needed for the slide-in units.

E. **Security / Data Integrity / Data Accuracy / Information Privacy**: A description of the security requirements of the project? How will these requirements be integrated into the project and tested. What measures will be taken to insure data integrity, data accuracy and information privacy?

Not applicable.

3. Current Technology Environment (Describe the following):

A. **Software (Client Side / Server Side / Midrange / Mainframe)**

- Application software
- Operating system software
- Interfaces to other systems: Identify important or major interfaces to internal and external systems

Not applicable.

B. **Hardware (Client Side / Server Side / Mid-range / Mainframe):**

- Platform, operating system, storage and physical environmental requirements.
- Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.
- Interfaces to other systems: Identify important or major interfaces to internal and external systems.

Not applicable.

4. Proposed Environment (Describe the following):

A. Software (Client Side / Server side / Mid-range / Mainframe)

- Application software.
- Operating system software.

- Interfaces to other systems: Identify important or major interfaces to internal and external systems.
- General parameters if specific parameters are unknown or to be determined.

Not applicable.

B. Hardware (Client Side / Server Side / Mid-range / Mainframe)

- Platform, operating system, storage and physical environmental requirements.
- Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.
- Interfaces to other systems: Identify important or major interfaces to internal and external systems.
- General parameters if specific parameters are unknown or to be determined.

Not applicable.

Data Elements: If the project creates a new database the project plan should include the specific software involved and a general description of the data elements.

Not applicable.

Project Schedule: A schedule that includes: time lines, resources, tasks, checkpoints, deliverables and responsible parties.

Upon immediate allocation of IT funds, a purchase order will be issued to the manufacturer for the slide-in units. Concurrently, General Services, Vehicle Dispatch will be given authorization to acquire the full-size pickups. Immediately upon receipt of the slide-in units and pick-ups, Weights & Measures staff will mount the units and implementation will commence by the field staff. Virtually no training will be required, as the equipment methodology is consistent with the type of provers currently in use.

SECTION 3: Return On Investment (ROI) Financial Analysis

Project Budget:

Provide the estimated project cost by expense category.

Personnel	$_____
Software	$_____
Hardware	$_____
Training	$_____
Facilities	$_____
Professional Services	$_____
Supplies	$_____
Other (Specify)……	$__25,800.00___
Total	$__25,800.00___

Project Funding:

Provide the estimated project cost by funding source.

State Funds	$__25,800.00___	____100__	% of total cost
Federal Funds	$_____	_____	% of total cost
Local Gov. Funds	$_____	_____	% of total cost
Private Funds	$_____	_____	% of total cost
Other Funds (Specify)	$_____	_____	% of total cost
Total Cost:	$__25,800.00___	_____	% of total cost

Provide the estimated project cost by fiscal year.

How much of the cost would be incurred by your agency from normal operating budgets (staff, equipment, etc.)? ..... ……$_____ _____%

How much of the cost would be paid by requested State IT project funds? $___25,800_ _100_%

Identify, list, and quantify all additional annual maintenance expenses (State $s) related to the project.

$200 annual maintenance of the slide-in units.

Identify, list, and quantify any other future additional expenses (State $s) related to the project.

ROI Financial Worksheet Directions (Attach Written Detail as Requested):

Annual Pre-Project Cost -- Quantify, in written detail, all actual State government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

See attached for details.

Annual Post-Project Cost -- Quantify, in written detail, all estimated State government direct and indirect costs associated with activity, system or process after project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

See attached for details.

State Government Benefit -- Subtract the total "Annual Post-Project Cost" from the total "Annual Pre-Project Cost." This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

See attached for details.

Citizen Benefit -- Quantify, in written detail, the estimated annual value of the project to Iowa citizens**.** This includes the "hard cost" value of avoiding expenses (hidden taxes) related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses.

See attached for details.

Opportunity Value/Risk or Loss Avoidance Benefit -- Quantify, in written detail, the estimated annual benefit to Iowa citizens or to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Not applicable

Total Annual Project Benefit -- Add the values of all annual benefit categories.

See attached for details.

Total Annual Project Cost -- Quantify, in written detail, the estimated annual new cost necessary to implement and maintain the project including consulting fees, equipment retirement, ongoing expenses (i.e. labor, etc.), other technology (hardware, software and development), and any other specifically identifiable project related expense. In general, to calculate the annual hardware cost, divide the hardware and associated costs by three (3), the useful life. In general, to calculate the annual software cost, divide the software and associated costs by four (4), the useful life. This may require assigning consulting fees to hardware cost or to software cost. A different useful life may be used if it can be documented.

See attached for details.

Benefit / Cost Ratio – Divide the "Total Annual Project Benefit" by the "Total Annual Project Cost." If the resulting figure is greater than one (1.00), then the annual project benefits exceed the annual project cost. If the resulting figure is less than one (1.00), then the annual project benefits are less than the annual project cost.

116,999.30/((25,800/5 yrs depr)+200 go-forward annual maintenance) =27.9

ROI -- Subtract the "Total Annual Project Cost" from the "Total Annual Project Benefit" and divide by the amount of the requested State IT project funds.

(116,999.30/((25,800/5 yrs depr)+200 annual maintenance))/25,800.00 = 560%

Benefits Not Cost Related or Quantifiable -- List the project benefits and articulate, in written detail, why they (IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.) are not cost related or quantifiable. Rate the importance of these benefits on a "1 – 10" basis, with "10" being of highest importance. Check the "Benefits Not Cost Related or Quantifiable" box in the applicable row.

Not applicable

ROI Financial Worksheet

Annual Pre-Project Cost - How You Perform The Function(s) Now	
FTE Cost (salary plus benefits):	**116,999.30**
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	**37,804.38**
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	**0**
A. Total Annual Pre-Project Cost:	**154,803.68**
Annual Post-Project Cost – How You Propose to Perform the Function(s)	
FTE Cost:	**114,867.00**
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	**30,062.57**
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	**0**
B. Total Annual Post-Project Cost:	**144,929.57**
State Government Benefit (= A-B):	**9,874.11**
Annual Benefit Summary	
State Government Benefit:	**9,874.11**
Citizen Benefit (including quantifiable "hidden taxes"):	**139,860.00**
Opportunity Value and Risk/Loss Avoidance Benefit:	**0**
C. Total Annual Project Benefit:	**149,734.11**
D. Total Annual Project Cost:	**5360.00**
Benefit / Cost Ratio (C / D):	**27.9**
ROI (C – D / Requested State IT Project Funds):	**_560%**

❑ **Benefits Not Cost Related or Quantifiable (including non-quantifiable "hidden taxes")**

SECTION 3: Return on Investment (ROI) Financial Analysis
Attachment: Pre- & Post- Project Cost Detail

		PRE PROJECT COSTS	POST PROJECT COSTS	STATE BENEFIT
FTE COST	% of FTE			
Clerk Specialist	21.43%	$7,522.50	$7,831.50	
Secretary 2	21.43%	$8,583.21	$0	
PSE 2	0.33%	$199.29	$215.67	
Metrologist	0.33%	$141.16	$148.03	
Lab Assistant 3	0.33%	$111.88	118.12	
Ag Program Supervisor	1.33%	$616.44	$658.71	
Weights & Measures Inspectors	20.51%	$99,824.82	$105,894.97	
Total FTE Cost		$116,999.30	$114,867.00	$2,132.30
OTHER COSTS				
Workers Compensation		$7,666.67	$83	
State Vehicles		$9,692.95	$9,692.95	
Depreciation on Vehicles		$6,281.52	$6,123.05	
In-State Travel		$14,163.24	$14,163.24	
Total Other Costs		$37,804.38	$30,062.57	$7,741.81
Total Pre/Post Project Costs		$154,803.68	$144,929.57	$9,874.11

SECTION 3: Return on Investment (ROI) Financial Analysis
Attachment: Consumer Benefit Detail

Average Gallons Gas Sold Annually in Iowa	1,500,000,000
Error Rate	0.70%
Total Gallons Involved in Error	10,500,000
Average Sale Price	$1.20
Ave. Sales Involved in Error	$12,600,000.00
Price Variance (.04/1.20)	3.33%
Additional Cost to Consumers	$419,580.00
If two slide in units are purchased Additional Cost to Consumers (1/3x419,580)	**$139,860.00**